

AMENDED IN ASSEMBLY APRIL 4, 2005

CALIFORNIA LEGISLATURE—2005–06 REGULAR SESSION

**ASSEMBLY BILL**

**No. 990**

**Introduced by Assembly Member Lieber**

February 18, 2005

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An act to add Chapter 7 (commencing with Section 42880) to Part 4 of Division 26 of the Health and Safety Code, relating to toxic substances.

LEGISLATIVE COUNSEL'S DIGEST

AB 990, as amended, Lieber. Toxic substances: ~~substitution~~  
*California Safer Chemical Substitutes Act of 2005.*

~~Existing~~

(1) Existing law requires the California Environmental Protection Agency to initiate a scientific peer review of screening levels for certain contaminants. The agency is required to publish a list of screening numbers determined for specified contaminants, and to conduct public workshops in establishing and revising those levels.

This bill would ~~declare the intention of the Legislature to enact legislation that would ensure the substitution of safer alternatives for priority toxic substances in their use, manufacture, emission, and distribution, including consumer products that contain these priority toxic substances, as specified~~ enact the *California Safer Chemical Substitutes Act of 2005*. Among other things, the act would prohibit the use or sale of methylene chloride, perchloroethylene, trichloroethylene, or 1-bromopropane, as those terms are defined in the act, including their use in consumer products, on or after January 1, 2007, but would allow their use for specified purposes until designated later dates. The bill would require that a manufacturer or distributor has a duty to take back specified substances from retailers



1     42881. *The Legislature finds and declares all of the*  
2 *following:*

3     (a) *Modern chemicals play a critical role in many aspects of*  
4 *society, welfare, commerce, and industrial development.*  
5 *According to the American Chemistry Council, more than 70,000*  
6 *products include some form of chemical substance that*  
7 *contributes to life-saving medicines, improved foods, more*  
8 *protective packaging, faster microprocessors, lightweight*  
9 *automobile parts, and stronger adhesives.*

10    (b) *However, scientific evidence increasingly links many acute*  
11 *and chronic diseases with repeated exposure to toxic substances,*  
12 *even at low doses.*

13    (c) *Methylene chloride, perchloroethylene, trichloroethylene,*  
14 *and 1-bromopropane (n-propyl bromide) are all listed as known*  
15 *to the State of California to cause cancer or reproductive toxicity*  
16 *under the Safe Drinking Water and Toxic Enforcement Act of*  
17 *1986 (Proposition 65).*

18    (d) *Methylene chloride, perchloroethylene, and*  
19 *trichloroethylene have also been identified as hazardous air*  
20 *pollutants by the United States Environmental Protection Agency*  
21 *and as toxic air contaminants by the State Air Resources Board.*

22    (e) *In 2002, approximately 123,000 pounds of methylene*  
23 *chloride, 254,000 pounds of perchloroethylene and 4,500 pounds*  
24 *of trichloroethylene were released in California by industrial*  
25 *facilities that are required to report to the federal Toxic Release*  
26 *Inventory.*

27    (f) *Given the availability of cost-effective and safer substitutes,*  
28 *the South Coast Air Quality Management District is phasing out*  
29 *the use of halogenated solvents, including those containing*  
30 *methylene chloride, perchloroethylene and trichloroethylene, in*  
31 *degreasing and cold cleaning operations unless that cleaning is*  
32 *performed in an airless/air-tight cleaning system.*

33    (g) *In 2000, the State Air Resources Board adopted a rule to*  
34 *phase-out the use of methylene chloride, perchloroethylene and*  
35 *trichloroethylene in automotive consumer products, citing the*  
36 *significant health risks they pose and the availability and*  
37 *suitability of nonchlorinated alternative solvents. The state board*  
38 *found that the rule would not have a significant adverse effect on*  
39 *businesses, including the ability of California businesses to*  
40 *compete with businesses in other states.*

1     (h) In June 2004, the state board adopted a rule to phase out  
2     methylene chloride, perchloroethylene and trichloroethylene in  
3     consumer products such as adhesive removers, contact  
4     adhesives, electronic cleaners, leather care products, and  
5     general purpose degreasers, again citing the significant health  
6     risks they pose and the availability of nonchlorinated  
7     alternatives.

8     (i) It is the intent of the Legislature to integrate the concept of  
9     substituting less toxic substances, or preferably nontoxic  
10    substances, for more toxic substances, where these alternatives  
11    are available, into the state's environmental regulatory and  
12    nonregulatory programs alike.

13    (j) There are safer, less toxic alternatives readily available for  
14    many toxic substances in use today. Greater reliance on these  
15    substances will ultimately minimize or eliminate downstream  
16    impacts caused by their release into the environment, exposure in  
17    the workplace or community, or disposal.

18    (k) Where less toxic substances are not readily available, a  
19    substitution mandate can spur innovation of cleaner, less toxic  
20    substances, products, or processes. For example, a European  
21    Union directive to phase out the use of a range of hazardous  
22    substances in electrical and electronic equipment by 2006 has  
23    been a significant driver of product redesign to eliminate or  
24    minimize the use of these substances.

25    (l) California businesses that use or purchase less toxic  
26    substances or products can also maintain a competitive  
27    advantage by reducing costs associated with health care  
28    expenditures, worker illnesses and turnover, materials handling  
29    and disposal, and by opening their products to local, national  
30    and international markets.

31    (m) Studies have found that viable, cost-effective (in some  
32    cases, less costly), and less toxic alternatives to methylene  
33    chloride, perchloroethylene, trichloroethylene, and  
34    1-bromopropane exist in vapor degreasing, cold cleaning, and  
35    other applications in a wide variety of industries. These  
36    alternatives include those solvents that are water- or soy-based  
37    or other alternative technologies such as CO<sub>2</sub> snow, plasma  
38    etch, and laser ablation.

39    (n) Investing in California businesses, and assisting them in  
40    developing and using safer alternatives, will make California a

1 *global leader in sustaining an innovative economy based on*  
2 *research, development, and production of new, cleaner*  
3 *materials, products and processes that strengthen our economy*  
4 *while protecting our health and environment.*

5 42882. As used in this article:

6 (a) “1-bromopropane” (CAS Registry Number 106-94-5)  
7 means the compound with the chemical formula  
8  $\text{CH}_2\text{BrCH}_2\text{CH}_3$ , also known as n-propyl bromide.

9 (b) “Airless/air-tight cleaning system” is a sealed cleaning  
10 system that has no open air/vapor or air/solvent interface, and is  
11 designed and automatically operated in such a manner as to  
12 minimize the discharge or leakage of solvent vapor emissions to  
13 the atmosphere during all cleaning and vacuum drying  
14 operations. The system consists of devices to condense and  
15 recover solvent and solvent vapor, and control devices to remove  
16 solvent vapors from all gas streams that vent to the atmosphere.

17 (c) “Consumer product” means a chemically formulated  
18 product used by household and institutional consumers,  
19 including, but not limited to, detergents; cleaning compounds;  
20 polishes; floor finishes; cosmetics; personal care products;  
21 home, lawn, and garden products; disinfectants; sanitizers;  
22 aerosol paints; and automotive specialty products; but does not  
23 include other paint products, furniture coatings, or architectural  
24 coatings.

25 (d) “Degreaser” is any equipment designed and used for  
26 holding a solvent to carry out solvent cleaning operations,  
27 including, but not limited to, batch-loaded cold cleaners,  
28 open-top vapor degreasers, conveyORIZED (inline), degreasers,  
29 and air-tight and airless cleaning systems.

30 (e) “Energized electrical cleaner” means a product that meets  
31 both of the following criteria: (1) the product is labeled to clean  
32 or degrease electrical equipment, where cleaning or degreasing  
33 is accomplished when electrical current exists, or when there is a  
34 residual electrical potential from a component, such as a  
35 capacitor; (2) the product label clearly displays the statements:  
36 “Energized Equipment use only. Not to be used for motorized  
37 vehicle maintenance, or their parts.”

38 (f) “Function substitution” means eliminating the use of any  
39 chemical substance to perform a particular function by engaging  
40 in a different means of meeting the same need—for instance,

1 *substituting digital thermometers for mercury thermometers, or*  
2 *using better day-to-day maintenance to avoid pest problems and*  
3 *thereby eliminate pesticide use.*

4 (g) “Manufacturer” means any person who imports,  
5 manufactures, assembles, produces, packages, repackages, or  
6 relabels a consumer product.

7 (h) “Material substitution” means the direct replacement of  
8 one substance for a toxic substance in a simple drop-in process,  
9 without otherwise changing the formula or process.

10 (i) “Methylene chloride” (CAS Registry Number 75-09-2)  
11 means the compound with the chemical formula “CH<sub>2</sub>Cl<sub>2</sub>,” also  
12 known by the name “dichloromethane.”

13 (j) “Paint remover or stripper” means any product designed  
14 to strip or remove paints or other related coatings, by chemical  
15 action, from a substrate without markedly affecting the substrate.  
16 “Paint remover or stripper” does not include “multi-purpose  
17 solvents,” paint brush cleaners, products designed and labeled  
18 exclusively as “graffiti removers,” and hand cleaner products  
19 that claim to remove paints and other related coatings from skin.

20 (k) “Perchloroethylene (Perc)” (CAS Registry Number  
21 127-18-4) means the compound with the chemical formula  
22 “C<sub>2</sub>Cl<sub>4</sub>,” also known by the name “tetrachloroethylene.”

23 (l) “Person” shall have the same meaning as defined in  
24 Section 39047.

25 (m) “Process substitution” means changing one substance to  
26 allow for the elimination of the use of a toxic substance by  
27 changing the process involved, for instance, using dry ice pellet  
28 blasting rather than chemical treatment to remove paint.

29 (n) “Safer alternatives” means a group of alternatives, or a  
30 specific alternative, which has been shown to be most effective at  
31 reducing the overall potential for harm to human health or the  
32 environment.

33 (o) “Solvent degreasing” is any portion of the operation from  
34 the removal of contaminants with solvents, from parts, products,  
35 tools, machinery, and equipment to the subsequent drying of the  
36 items.

37 (p) “Substitution” means “function substitution,” “material  
38 substitution,” or “process substitution,” as defined in this  
39 section.

1 (q) "Trichloroethylene" (CAS Registry Number 79-01-6)  
2 means the compound with the chemical formula "C<sub>2</sub>HCl<sub>3</sub>," also  
3 known by the name "TCE."

4 (r) "Volatile organic compound" (VOC) is any volatile  
5 compound of carbon, excluding methane, carbon monoxide,  
6 carbon dioxide, carbonic acid, metallic carbides or carbonates,  
7 ammonium carbonate, and exempt compounds.

8 42883. (a) Except as provided in subdivision (b), no person  
9 may use, sell, supply, or offer for sale methylene chloride,  
10 perchloroethylene, trichloroethylene, or 1-bromopropane,  
11 including their use in consumer products, on or after January 1,  
12 2007.

13 (b) Methylene chloride, perchloroethylene or trichloroethylene  
14 may be used, sold, supplied, or offered for sale until the date  
15 specified, if applicable, for the following applications:

16 (1) Until January 1, 2010: solvent cleaning or vapor  
17 degreasing with an airless/air-tight cleaning system.

18 (2) Until January 1, 2010: energized electrical equipment  
19 cleaning.

20 (3) Until January 1, 2010: motion picture film cleaning.

21 (4) Until January 1, 2008: paint removal or stripping.

22 (5) Dry cleaning operations.

23 (c) Substitution for methylene chloride, perchloroethylene,  
24 trichloroethylene, or 1-bromopropane may be achieved through  
25 material substitution, process substitution, or functional  
26 substitution.

27 (d) It is the intent of the Legislature to ensure that chemicals  
28 or other hazardous substances substituted for methylene  
29 chloride, perchloroethylene, trichloroethylene, and  
30 1-bromopropane are effective at reducing the overall potential  
31 for harm to human health or the environment. At a minimum,  
32 substances with available scientific data consistent with  
33 carcinogenicity, mutagenicity, and adverse effects on  
34 reproductive toxicity shall not be allowed as substitutes for  
35 methylene chloride, perchloroethylene, trichloroethylene, or  
36 1-bromopropane. Consistent with subdivision (g), the State Air  
37 Resources Board, in consultation with the Office of  
38 Environmental Health Hazard Assessment and the State  
39 Department of Health Services, shall promulgate regulations by  
40 August 1, 2006, to carry out the requirements of this subdivision.

(e) Notwithstanding the provisions of subdivisions (a) and (b), methylene chloride, perchloroethylene, trichloroethylene, or 1-bromopropane and a consumer product containing these same chemicals may be used, supplied, or offered for sale for up to 12 months after the effective dates specified in subdivisions (a) and (b).

(f) A manufacturer or distributor shall have a duty to take back from retailers and consumers, and compensate them for the full price paid for methylene chloride, perchloroethylene, trichloroethylene, or 1-bromopropane or a consumer product containing these same chemicals sold after the end of the sell-through period identified in subdivision (e).

(g) The State Air Resources Board shall promulgate regulations by August 1, 2006, to implement and enforce this section. The state board may promulgate regulations that transfer enforcement authority to air pollution control districts and air quality management districts.

(h) By July 1, 2008, and every two years thereafter, the Office of Environmental Health Hazard Assessment (OEHHA), in consultation with the State Department of Health Services, the State Air Resources Board, the Department of Toxic Substances Control, and any other relevant public agency, shall recommend to the Legislature whether other chemicals or hazardous substances in commerce in California are candidates for substitution. The OEHHA shall consider all of the following factors in developing its recommendation:

(1) Whether there is credible evidence that a hazardous substance poses a potential for significant harm to human health or the environment in California.

(2) Whether the substance is widely used in California.

(3) Whether safer alternatives are available for at least some of the applications or industries in which the substance is used.

SEC. 2. If the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.

~~(a) Designating an initial group of priority toxic substances that are required to be substituted, if a safer alternative is found to be feasible.~~



1 ~~(b) Assessing the use of priority toxic substances through the~~  
2 ~~University of California, or other designated research or~~  
3 ~~academic entity in cooperation with the University of California,~~  
4 ~~to determine whether there are safer feasible alternatives~~  
5 ~~available for each usage category.~~

6 ~~(c) If there is a use of a priority toxic substance for which~~  
7 ~~there is no safer feasible alternative, instituting further research~~  
8 ~~and development regarding that substance.~~

9 ~~(d) Directing the California Environmental Protection Agency~~  
10 ~~to set priorities for investment, business assistance, and~~  
11 ~~regulatory agency action based on a priority toxic substances's~~  
12 ~~potential health and environmental impacts, on the economic and~~  
13 ~~technical ease of substitution, and on the economic benefits of~~  
14 ~~investment in safer alternatives.~~

15 ~~(e) Giving flexibility to businesses to develop and implement~~  
16 ~~their own measures to choose and implement safer alternatives.~~

17 ~~(f) Directing the California Environmental Protection Agency~~  
18 ~~to serve as the implementing regulatory agency for implementing~~  
19 ~~safer feasible alternatives.~~

20 ~~(g) Directing the California Environmental Protection Agency~~  
21 ~~to coordinate technical assistance to businesses in developing~~  
22 ~~safer alternatives and substituting priority toxic substances.~~

23 ~~(h) Assessing fees on priority toxic substances to raise funds to~~  
24 ~~create a Business Transition Assistance Program and an~~  
25 ~~Innovative Industries Investment Plan and to cover regulatory~~  
26 ~~costs.~~